



Palo Alto, 02/14/2012

Concerns: Battery pack in Roadster VIN 340

Dear Mr. Drucker,

Thank you very much for allowing us to evaluate your Tesla Roadster. We have done a thorough assessment of the events leading up to your battery failure.

We reviewed the vehicle logs to understand all events leading up to the complete discharge (and therefore complete failure) of your battery pack. The details below:

- Nov. 19th Last known charge cycle. SOC (State of Charge) at the end of the charge was 87%, no faults.
- Nov. 22nd Last known drive, SOC at the end of the drive was 21%
Vehicle goes into idle mode as it was not placed on charge.
SOC slowly decreases as expected. Both the fan and coolant pump continue to operate as needed to keep the battery pack at its optimal storage temperature.
- Dec. 28th Vehicle triggers audible and visual alarm "Plug me in due to low SOC". This starts at 4% SOC level remaining.
- Jan. 3rd SOC hits 0%
- Jan. 17th VMS (Vehicle Management System) stops recording logs as the battery voltage will no longer support CAN traffic (under 250v)
- Feb. 3rd Vehicle arrives at the LA Service Center.
- Feb. 7th LA Service Center offers to replace the complete battery pack at a price of around \$ 40,000. Warranty was declined as this was a clear case of non-charging that caused the failure.

From a technical perspective, a properly functioning Roadster left with only 21% charge, will deteriorate in charge level in the pattern we see here. Both the coolant pump as well as the fan will draw power as needed to keep the battery pack in optimal storage condition. Also the audible and visual warning signals that went off 7 days straight, 24 hours a day before being exhausted also performed exactly according to specification.

Based on this clear log of events, the decision by the LA Service Center to decline warranty of the needed repairs is correct and justified. Since the first deliveries of Roadster in the US, all our documentation as well as the handover process when the vehicle was new underscored the need to keep the Roadster plugged into power when leaving the vehicle for extended periods of time. You referred to the language on our Model S website regarding taking a trip. You must also read this in context with the bullet points below. Here are the two bullet points:

- Battery lifetime is affected by two things: age and the energy it delivers over the years. The Tesla battery is optimized for nightly charging: such topping off enhances the longevity of your battery.
- The Model S battery will not lose a significant amount of charge when parked for long periods of time. For example, Model S owners can park at the airport for extended vacations without plugging in. The fact that your battery pack only deteriorated to 0% in 42 days when parked with a charge level of 21% is a testament to how long it is actually possible to keep the Roadster in storage without an external source of power connected. With a fully charged battery pack it would last many months before the 4% threshold and subsequent alarms would be reached.

Our 'Quick Reference Guide', 'Battery Charging Guide', 'User Manual' as well as the 'Warranty booklet' all identify in clear language to keep the Roadster on external power when parked. I have attached copies for your reference.

Lastly, at every service visit, our Service Center technicians leave a 'remember to charge' card in the vehicle after service. We found one in the boot of your Roadster today.

We are very sorry for the situation you now find yourself in, but looking objectively at this case we cannot provide you any financial subsidy towards the replacement of your battery pack under warranty.

We stand ready to replace your battery at a moments notice based upon the quote previously provided by the LA Service Center. Please let me know if you would like us to do so.

I remain available at any time to answer any and all questions you may have regarding this situation. Please feel free to contact me via email or on my mobile at [REDACTED]. I will be traveling extensively over the next few weeks in Europe, so please leave me a message or email if I do not answer immediately. It is likely I am on a plane or different time zone if I do not answer.

Thanks again for giving us a day to assess this situation. We look forward to getting this taken care of for you as soon as possible.

Sincerely,

J. Joost de Vries
Vice President Worldwide Service

[REDACTED]